

**Design, Supply, Installation, Testing & Commissioning of 400/230/132 kV AIS Substation at Pekua and associated single /double circuit 400kV/230kV/132kV LILO Lines on turnkey basis (Package-1)
[Contract No.: POWERGRID/ADB/400kV/PEKUA/PTSIREP/PACKAGE-1/Re-Tender]**

Schedule 1D: Plant and Mandatory Spare Parts Supplied from Abroad

Item	Description (For detailed description, please refer to specification and Schedule A)	Country of Origin	Unit	Quantity	Foreign Currency (In.....)	
					Unit Price ¹ CIP	Total Price ¹ CIP
1	2	3	4	5	6	7=5x6
1A	420 kV Air Insulated Switchgear					
1A.1	420KV Circuit breaker associated with transformer switching					
1A.1.1	SF6 Circuit breaker, 4000A, 63kA/1s, live tank, gang operating with CSD		set	4		
1A.1.2	SF6 Circuit breaker, 4000A, 63kA/1s, live tank, single pole operating with CSD & PIR		set	1		
1A.2	SF6 Circuit breaker, 4000A, 63kA/1s, live tank, single pole operating with PIR		set	8		
1A.3	Disconnect switch with E/S, 4000A, 63kA/1s		set	7		
1A.4	Disconnect switch without E/S, 4000A, 63kA/1s		set	26		
1A.5	Busbar grounding Switch		set	2		
1A.6	Single phase current transformer, multi core, 4000/1, 63kA/1s		nos.	78		
1A.7	Single phase capacitive voltage transformer, multi-core		nos.	27		
1A.8	Single phase surge arrester, 390kV rated, 10kA		nos.	27		
1A.9	Wave Trap, single phase, 420kV, 4000A, 63kA/1s		nos.	4		
1A.10	Post type support insulators for 400kV busbar and switchgear		lot	1		
1A.11	Rigid tubular bus and required conductors, insulators, fittings including all necessary clamps and connectors for busbar compositions					
i)	Rigid Tubular Bus		lot	1		
ii)	Flexible Conductor for jumper, equipment connections		lot	1		
iii)	Insulator		lot	1		
iv)	Fittings		lot	1		
1A.12	Steel Structures for gantry and equipment supports					
a)	Gantry Column including nut & bolts		lot	1		
b)	Gantry beam at Main Bus & Jack-Bus height including nut & bolts		lot	1		
c)	Equipment support structures including nut & bolts					
i)	Circuit Breaker		set	13		
ii)	Disconnect with Earth Switch		set	7		
iii)	Disconnect without Earth Switch		set	28		
iv)	Bus Earth Switch		set	2		
v)	Current Transformer		nos.	78		
vi)	Capacitive Voltage Transformer		nos.	27		
vii)	Surge Arrester		nos.	27		
viii)	Wave Trap		nos.	4		
ix)	Post type support insulators for 400kV busbar and switchgear		lot	1		
d)	Cable tray including fitting, fixing accessories		lot	1		
1B	245 kV Air Insulated Switchgear					
1B.1	SF6 Circuit breaker, 2000A, 50kA/1s, live tank, gang operating for Transformer Bay		set	5		
1B.2	SF6 Circuit breaker, 2000A, 50kA/1s, live tank, single pole operating for Line Bay		set	2		
1B.3	SF6 Circuit breaker, 3150A, 50kA/1s, live tank, gang operating for Bus Coupler Bay		set	1		
1B.4	Disconnect switch without E/S, 2000A, 50kA/1s for Transformer Bay		set	10		
1B.5	Disconnect switch without E/S, 2000A, 50kA/1s for Line bay		set	4		
1B.6	Disconnect switch without E/S, 3150A, 50kA/1s for bus coupler bay		set	2		
1B.7	Disconnect switch with E/S, 2000A, 50kA/1s for line & Transformer Bay		set	7		
1B.8	Single phase current transformer, 50kA/1s multicore for Transformer Bay		nos.	15		
1B.9	Single phase current transformer, 50kA/1s multicore for line bay		nos.	6		
1B.10	Single phase current transformer, 50kA/1s multicore for bus coupler bay		nos.	3		
1B.11	Single phase capacitive voltage transformer (CVT), multi core		nos.	27		
1B.12	Single phase surge arrester, 198kV rated, 10kA		nos.	21		
1B.13	Flexible conductors for bus and jumper, insulators, fittings including all necessary clamps and connectors for busbar compositions					
i)	Flexible Conductor for Bus, jumper, equipment connections		lot	1		
ii)	Insulator		lot	1		
iii)	Fittings		lot	1		
Sub-Total Price carried forward						
Sub Total Price in words						

Asst. Engr *Engr* *Engr*

Design, Supply, Installation, Testing & Commissioning of 400/230/132 kV AIS Substation at Pekua and associated single /double circuit 400kV/230kV/132kV LILO Lines on turnkey basis (Package-1)
[Contract No.: POWERGRID/ADB/400kV/PEKUA/PTSIREP/PACKAGE-1/Re-Tender]

Schedule 1D: Plant and Mandatory Spare Parts Supplied from Abroad

Item	Description (For detailed description, please refer to specification and Schedule A)	Country of Origin	Unit	Quantity	Foreign Currency (in.....)	
					Unit Price	Total Price
					CIP	CIP
1	2	3	4	5	6	7=5x6
Sub-Total brought forward						
1B.14	Steel Structures for gantry and equipment supports					
a)	Gantry Column including nut & bolts		lot	1		
b)	Gantry beam at Main Bus & Jack-Bus height including nut & bolts		lot	1		
c)	Equipment support structures including nut & bolts					
i)	Circuit Breaker		set	8		
ii)	Disconnector without Earth Switch		set	16		
iii)	Disconnector with Earth Switch		set	7		
iv)	Bus Earth Switch		set	0		
v)	Current Transformer		nos.	24		
vi)	Capacitive Voltage Transformer		nos.	27		
vii)	Surge Arrester		nos.	21		
viii)	Wave Trap		set	0		
ix)	Post type support insulators		lot	1		
d)	Cable tray including fitting, fixing accessories		lot	1		
1C	145 KV Air Insulated Switchgear					
1C.1	SF6 Circuit breaker, 1600A, 40kA/1s, live tank, gang operating for Transformer Bay		set	2		
1C.2	SF6 Circuit breaker, 1600A, 40kA/1s, live tank, single pole operating for Line Bay		set	6		
1C.3	SF6 Circuit breaker, 3150A, 40kA/1s, live tank, gang operating for Bus Coupler Bay		set	1		
1C.4	Disconnector switch without E/S, 1600A, 40kA/1s for Transformer Bay		set	4		
1C.5	Disconnector switch without E/S, 1600A, 40kA/1s for Line bay		set	12		
1C.6	Disconnector switch without E/S, 3150A, 40kA/1s for bus coupler bay		set	2		
1C.7	Disconnector switch with E/S, 1600A, 40kA/1s for line & Transformer Bay		set	8		
1C.8	Single phase current transformer, 40kA/1s multi core for Transformer Bay		nos.	6		
1C.9	Single phase current transformer, 40kA/1s for line bay		nos.	18		
1C.10	Single phase current transformer, 40kA/1s for bus coupler bay		nos.	3		
1C.11	Single phase voltage transformer (VT), multi-core		nos.	30		
1C.12	Single phase surge arrester, 120kV rated, 10kA		nos.	24		
1C.13	Flexible conductors for bus and jumper, insulators, fittings including all necessary clamps and connectors for busbar compositions					
i)	Flexible Conductor for Bus, jumper, equipment connections		lot	1		
ii)	Insulator		lot	1		
iii)	Fittings		lot	1		
Sub-Total Price carried forward						
Sub Total Price in words.....						

Ashish *Q. M. S.*

Design, Supply, Installation, Testing & Commissioning of 400/230/132 kV AIS Substation at Pekua and associated single /double circuit 400kV/230kV/132kV LILO Lines on turnkey basis (Package-1)
[Contract No.: POWERGRID/ADB/400kV/PEKUA/PTSIREP/PACKAGE-1/Re-Tender]

Schedule 1D: Plant and Mandatory Spare Parts Supplied from Abroad

Item	Description (For detailed description, please refer to specification and Schedule A)	Country of Origin	Unit	Quantity	Foreign Currency (in.....)	
					Unit Price	Total Price
					CIP	CIP
1	2	3	4	5	6	7=5x6
Sub-Total brought forward						
1C.14	Steel Structures for gantry and equipment supports					
a)	Gantry Column including nut & bolts		lot	1		
i)	For Main Bus		lot	1		
ii)	For Jack-Bus		lot	1		
b)	Gantry beam at Main Bus & Jack-Bus height including nut & bolts		lot	1		
c)	Equipment support structures including nut & bolts					
i)	Circuit Breaker		set	9		
ii)	Disconnecter without Earth Switch		set	18		
iii)	Disconnecter with Earth Switch		set	8		
iv)	Bus Earth Switch		set	0		
v)	Current Transformer		nos.	27		
vi)	Voltage Transformer		nos.	30		
vii)	Surge Arrester		nos.	24		
viii)	Wave Trap		set	0		
b)	Post type support insulators		lot	1		
d)	Cable tray including fitting, fixing accessories		lot	1		
1D	33kV Switches & connection					
1D.1	33kV Vacuum Circuit breaker		set	2		
1D.2	33kV Disconnecter switch		set	4		
1D.3	33kV Inductive voltage transformer (IVT), 2 core		nos.	15		
1D.4	Single phase surge arrester, 30kV rated, 10kA		nos.	15		
1D.5	Tertiary side connection including necessary fittings, structures, 33kV XLPE cable and conductors		lot	1		
1D.6	33kV Current transformer		nos.	6		
1E	Power Transformer & Earthing/Auxiliary Transformer					
1E.1	400/230/33 kV, 400/520MVA (ONAN/ONAF), three phase Power Transformer		set	3		
1E.2	230/132/33 kV, 225/300MVA (ONAN/ONAF), three phase Power Transformer		set	2		
1E.3	33/0.4 kV, 500kVA Earthing auxiliary Transformer		set	2		
1E.4	Complete water spray fire fighting system for all 400/230/33 kV three phase outdoor type power transformer		lot	1		
1E.5	Complete water spray fire fighting system for all 230/132/33 kV three phase outdoor type power transformer		lot	1		
1E.6	On-line Dissolved Gas & moisture monitoring system for 400/230/33kV auto transformers bank		set	3		
1F	Control, Protection, SAS and Metering					
1F.1	Complete Station SAS Panels		lot	1		
	420kV Circuits					
1F.2	Complete Control, Protection, monitoring & SAS Panel for overhead line circuits		set	4		
1F.3	Complete Control, Protection, monitoring & SAS Panel for Auto transformer circuits		set	3		
1F.4	Complete Control, Protection, monitoring & SAS Panel for Bus Coupler circuits		set	2		
1F.5	Complete Busbar Protection Panel		set	1		
1F.6	Complete Digital Fault Disturbance Recorder (DFDR) panel		lot	1		
1F.7	Complete Tariff metering panel		lot	1		
	230kV Circuits					
1F.8	Complete Control, Protection, monitoring & SAS Panel for overhead line circuits		set	2		
1F.9	Complete Control, Protection, monitoring & SAS Panel for Auto transformer circuits		set	5		
1F.10	Complete Control, Protection, monitoring & SAS Panel for Bus Coupler circuits		set	1		
1F.11	Complete Busbar Protection Panel		set	2		
1F.12	Complete Digital Fault Disturbance Recorder (DFDR) panel		set	1		
1F.13	Complete Tariff metering panel		lot	1		
	145kV Circuits					
1F.14	Complete Control, Protection, monitoring & SAS Panel for overhead line circuits		set	6		
1F.15	Complete Control, Protection, monitoring & SAS Panel for Auto transformer circuits		set	2		
1F.16	Complete Control, Protection, monitoring & SAS Panel for Bus Coupler circuits		set	1		
1F.17	Complete Busbar Protection Panel		set	1		
1F.18	Complete Digital Fault Disturbance Recorder (DFDR) panel		set	1		
1F.19	Complete Tariff metering panel		lot	1		
	38kV Circuit					
1F.20	Control, Monitoring, Protection & SAS for 33kV station power system		lot	1		
1F.21	Tariff metering		lot	1		
1G	Multicore Cables					
1G.1	Multicore Cables for control, protection, metering & power circuits					
i)	LV Control Cable		lot	1		
ii)	LV Power Cable		lot	1		
Sub-Total Price carried forward						
Sub Total Price in words.....						

Asim *Asim* *Asim*

Design, Supply, Installation, Testing & Commissioning of 400/230/132 kV AIS Substation at Pekua and associated single /double circuit 400kV/230kV/132kV LILO Lines on turnkey basis (Package-1)
[Contract No.: POWERGRID/ADB/400kV/PEKUA/PTSIREP/PACKAGE-1/Re-Tender]

Schedule 2D: Plant and Mandatory Spare Parts Supplied from within the Employer's

Item	Description (For detailed description, please refer to specification and Schedule A)	Unit	Quantity	Unit Price ¹		Total Price ¹	
				Local Currency [In BDT]	Foreign Currency [In]	Local Currency [In BDT]	Foreign Currency [In]
				EXW	EXW	EXW	EXW
1	2	3	4	5	6	7 = 4x5	8 = 4x6
1A	420 kV Air Insulated Switchgear						
1A.1	420KV Circuit breaker associated with transformer switching						
1A.1.1	SF6 Circuit breaker, 4000A, 63kA/1s, live tank, gang operating with CSD	set	4				
1A.1.2	SF6 Circuit breaker, 4000A, 63kA/1s, live tank, single pole operating with CSD & PIR	set	1				
1A.2	SF6 Circuit breaker, 4000A, 63kA/1s, live tank, single pole operating with PIR	set	8				
1A.3	Disconnector switch with E/S, 4000A, 63kA/1s	set	7				
1A.4	Disconnector switch without E/S, 4000A, 63kA/1s	set	26				
1A.5	Busbar grounding Switch	set	2				
1A.6	Single phase current transformer, multi core, 4000/1, 63kA/1s	nos.	78				
1A.7	Single phase capacitive voltage transformer, multi-core	nos.	27				
1A.8	Single phase surge arrester, 390kV rated, 10kA	nos.	27				
1A.9	Wave Trap, single phase, 420kV, 4000A, 63kA/1s	nos.	4				
1A.10	Post type support insulators for 400kV busbar and switchgear	lot	1				
1A.11	Rigid tubular bus and required conductors, insulators, fittings including all necessary clamps and connectors for busbar compositions						
i)	Rigid Tubular Bus	lot	1				
ii)	Flexible Conductor for jumper, equipment connections	lot	1				
iii)	Insulator	lot	1				
iv)	Fittings	lot	1				
1A.12	Steel Structures for gantry and equipment supports						
a)	Gantry Column including nut & bolts	lot	1				
b)	Gantry beam at Main Bus & Jack-Bus height including nut & bolts	lot	1				
c)	Equipment support structures including nut & bolts						
i)	Circuit Breaker	set	13				
ii)	Disconnector with Earth Switch	set	7				
iii)	Disconnector without Earth Switch	set	26				
iv)	Bus Earth Switch	set	2				
v)	Current Transformer	nos.	78				
vi)	Capacitive Voltage Transformer	nos.	27				
vii)	Surge Arrester	nos.	27				
viii)	Wave Trap	nos.	4				
ix)	Post type support insulators for 400kV busbar and switchgear	lot	1				
d)	Cable tray including fitting, fixing accessories	lot	1				
1B	245 kV Air Insulated Switchgear						
1B.1	SF6 Circuit breaker, 2000A, 50kA/1s, live tank, gang operating for Transformer Bay	set	5				
1B.2	SF6 Circuit breaker, 2000A, 50kA/1s, live tank, single pole operating for Line Bay	set	2				
1B.3	SF6 Circuit breaker, 3150A, 50kA/1s, live tank, gang operating for Bus Coupler Bay	set	1				
1B.4	Disconnector switch without E/S, 2000A, 50kA/1s for Transformer Bay	set	10				
1B.5	Disconnector switch without E/S, 2000A, 50kA/1s for Line bay	set	4				
1B.6	Disconnector switch without E/S, 3150A, 50kA/1s for bus coupler bay	set	2				
1B.7	Disconnector switch with E/S, 2000A, 50kA/1s for line & Transformer Bay	set	7				
1B.8	Single phase current transformer, 50kA/1s multicore for Transformer Bay	nos.	15				
1B.9	Single phase current transformer, 50kA/1s multicore for line bay	nos.	6				
1B.10	Single phase current transformer, 50kA/1s multicore for bus coupler bay	nos.	3				
1B.11	Single phase capacitive voltage transformer (CVT), multi core	nos.	27				
1B.12	Single phase surge arrester, 198kV rated, 10kA	nos.	21				
1B.13	Flexible conductors for bus and jumper, insulators, fittings including all necessary clamps and connectors for busbar compositions						
i)	Flexible Conductor for Bus, jumper, equipment connections	lot	1				
ii)	Insulator	lot	1				
iii)	Fittings	lot	1				
Sub-Total Price carried forward							
Sub Total Price in words							

Asim *1* *Lot*

Design, Supply, Installation, Testing & Commissioning of 400/230/132 kV AIS Substation at Pekua and associated single /double circuit 400kV/230kV/132kV LILLO Lines on turnkey basis (Package-1)
[Contract No.: POWERGRID/ADB/400kV/PEKUA/PTSIREP/PACKAGE-1/Re-Tender]

Schedule 2D: Plant and Mandatory Spare Parts Supplied from within the Employer's Country

Item	Description (For detailed description, please refer to specification and Schedule A)	Unit	Quantity	Unit Price ¹		Total Price ¹	
				Local Currency [In BDT]	Foreign Currency [In USD]	Local Currency [In BDT]	Foreign Currency [In USD]
				EXW	EXW	EXW	EXW
1	2	3	4	5	6	7 = 4x5	8 = 4x6
Sub-Total brought forward							
1B.14	Steel Structures for gantry and equipment supports						
a)	Gantry Column including nut & bolts	lot	1				
b)	Gantry beam at Main Bus & Jack-Bus height including nut & bolts	lot	1				
c)	Equipment support structures including nut & bolts						
i)	Circuit Breaker	set	8				
ii)	Disconnecter without Earth Switch	set	16				
iii)	Disconnecter with Earth Switch	set	7				
iv)	Bus Earth Switch	set	0				
v)	Current Transformer	nos.	24				
vi)	Capacitive Voltage Transformer	nos.	27				
vii)	Surge Arrester	nos.	21				
viii)	Wave Trap	set	0				
ix)	Post type support insulators	lot	1				
d)	Cable tray including fitting, fixing accessories	lot	1				
1C	145 kV Air Insulated Switchgear						
1C.1	SF6 Circuit breaker, 1600A, 40kA/1s, live tank, gang operating for Transformer Bay	set	2				
1C.2	SF6 Circuit breaker, 1600A, 40kA/1s, live tank, single pole operating for Line Bay	set	6				
1C.3	SF6 Circuit breaker, 3150A, 40kA/1s, live tank, gang operating for Bus Coupler Bay	set	1				
1C.4	Disconnecter switch without E/S, 1600A, 40kA/1s for Transformer Bay	set	4				
1C.5	Disconnecter switch without E/S, 1600A, 40kA/1s for Line bay	set	12				
1C.6	Disconnecter switch without E/S, 3150A, 40kA/1s for bus coupler bay	set	2				
1C.7	Disconnecter switch with E/S, 1600A, 40kA/1s for line & Transformer Bay	set	8				
1C.8	Single phase current transformer, 40kA/1s multi core for Transformer Bay	nos.	6				
1C.9	Single phase current transformer, 40kA/1s for line bay	nos.	18				
1C.10	Single phase current transformer, 40kA/1s for bus coupler bay	nos.	3				
1C.11	Single phase voltage transformer (VT), multi-core	nos.	30				
1C.12	Single phase surge arrester, 120kV rated, 10kA	nos.	24				
1C.13	Flexible conductors for bus and jumper, insulators, fittings including all necessary clamps and connectors for busbar compositions						
i)	Flexible Conductor for Bus, jumper, equipment connections	lot	1				
ii)	Insulator	lot	1				
iii)	Fittings	lot	1				
Sub-Total Price carried forward							
Sub Total Price in words.....							

Ashikur *1. Munn* *9/1*

Design, Supply, Installation, Testing & Commissioning of 400/230/132 kV AIS Substation at Pekua and associated single /double circuit 400kV/230kV/132kV LILO Lines on turnkey basis (Package-1)
[Contract No.: POWERGRID/ADB/400kV/PEKUA/PTSIREP/PACKAGE-1/Re-Tender]

Schedule 2D: Plant and Mandatory Spare Parts Supplied from within the Employer's Country

Item	Description (For detailed description, please refer to specification and Schedule A)	Unit	Quantity	Unit Price ¹		Total Price ¹	
				Local Currency [In BDT]	Foreign Currency [In EXW]	Local Currency [In BDT]	Foreign Currency [In EXW]
				EXW	EXW	EXW	EXW
1	2	3	4	5	6	7 = 4x5	8 = 4x6
Sub-Total brought forward							
1C.14	Steel Structures for gantry and equipment supports						
a)	Gantry Column including nut & bolts						
i)	For Main Bus	lot	1				
ii)	For Jack-Bus	lot	1				
b)	Gantry beam at Main Bus & Jack-Bus height including nut & bolts	lot	1				
c)	Equipment support structures including nut & bolts						
i)	Circuit Breaker	set	9				
ii)	Disconnecter without Earth Switch	set	18				
iii)	Disconnecter with Earth Switch	set	8				
iv)	Bus Earth Switch	set	0				
v)	Current Transformer	nos.	27				
vi)	Voltage Transformer	nos.	30				
vii)	Surge Arrester	nos.	24				
viii)	Wave Trap	set	0				
ix)	Post type support insulators	lot	1				
x)	Cable tray including fitting, fixing accessories	lot	1				
1D	33kV Switches & connection						
1D.1	33kV Vacuum Circuit breaker	set	2				
1D.2	33kV Disconnecter switch	set	4				
1D.3	33kV Inductive voltage transformer (VT), 2 core	nos.	15				
1D.4	Single phase surge arrester, 30kV rated, 10kA	nos.	15				
1D.5	Tertiary side connection including necessary fittings, structures, 33kV XLPE cable and conductors	lot	1				
1D.6	33kV Current transformer	nos.	6				
1E	Power Transformer & Earthing/Auxiliary Transformer						
1E.1	400/230/33 kV, 400/520MVA (ONAN/ONAF), three phase Power Transformer	set	3				
1E.2	230/132/33 kV, 225/300MVA (ONAN/ONAF), three phase Power Transformer	set	2				
1E.3	33/0.4 kV, 500kVA Earthing auxiliary Transformer	set	2				
1E.4	Complete water spray fire fighting system for all 400/230/33 kV three phase outdoor type power transformer	lot	1				
1E.5	Complete water spray fire fighting system for all 230/132/33 kV three phase outdoor type power transformer	lot	1				
1E.6	On-line Dissolved Gas & moisture monitoring system for 400/230/33kV auto transformers bank	set	3				
1F	Control, Protection, SAS and Metering						
1F.1	Complete Station SAS Panels	lot	1				
420kV Circuits							
1F.2	Complete Control, Protection, monitoring & SAS Panel for overhead line circuits	set	4				
1F.3	Complete Control, Protection, monitoring & SAS Panel for Auto transformer circuits	set	3				
1F.4	Complete Busbar Protection Panel	set	2				
1F.5	Complete Digital Fault Disturbance Recorder (DFDR) panel	Set	1				
1F.6	Complete Tariff metering panel	lot	1				
230kV Circuits							
1F.7	Complete Control, Protection, monitoring & SAS Panel for overhead line circuits	set	2				
1F.8	Complete Control, Protection, monitoring & SAS Panel for Auto transformer circuits	set	5				
1F.9	Complete Control, Protection, monitoring & SAS Panel for Bus Coupler circuits	set	1				
1F.10	Complete Busbar Protection Panel	set	2				
1F.11	Complete Digital Fault Disturbance Recorder (DFDR) panel	Set	1				
1F.12	Complete Tariff metering panel	lot	1				
145kV Circuits							
1F.13	Complete Control, Protection, monitoring & SAS Panel for overhead line circuits	set	6				
1F.14	Complete Control, Protection, monitoring & SAS Panel for Auto transformer circuits	set	2				
1F.15	Complete Control, Protection, monitoring & SAS Panel for Bus Coupler circuits	set	1				
1F.16	Complete Busbar Protection Panel	set	1				
1F.17	Complete Digital Fault Disturbance Recorder (DFDR) panel	Set	1				
1F.18	Complete Tariff metering panel	lot	1				
38kV Circuit							
1F.19	Control, Monitoring, Protection & SAS for 33kV station power system	lot	1				
1F.20	Tariff metering	lot	1				
1G	Multicore Cables						
1G.1	Multicore Cables for control, protection, metering & power circuits						
i)	LV Control Cable	lot	1				
ii)	LV Power Cable	lot	1				
Sub-Total Price carried forward							
Sub Total Price in words.....							

Ashim *G. Manna* *Sol*

Design, Supply, Installation, Testing & Commissioning of 400/230/132 kV AIS Substation at Pekua and associated single /double circuit 400kV/230kV/132kV LILO Lines on turnkey basis (Package-1)
[Contract No.: POWERGRID/ADB/400kV/PEKUA/PTSIREP/PACKAGE-1/Re-Tender]

Schedule 4D: Installation and Other Services

Item	Description (For detailed description, please refer to specification and Schedule A)	Unit	Quantity	Unit Price ¹		Total Price ¹	
				Local Currency [In BDT]	Foreign Currency [In]	Local Currency [In BDT]	Foreign Currency [In]
1	2	3	4	5	6	7 = 4x5	8 = 4x6
1A	420 kV Air Insulated Switchgear						
1A.1	420KV Circuit breaker associated with transformer switching						
1A.1.1	SF6 Circuit breaker, 4000A, 63kA/1s, live tank, gang operating with CSD	set	4				
1A.1.2	SF6 Circuit breaker, 4000A, 63kA/1s, live tank, single pole operating with CSD & PIR	set	1				
1A.2	SF6 Circuit breaker, 4000A, 63kA/1s, live tank, single pole operating with PIR	set	8				
1A.3	Disconnector switch with E/S, 4000A, 63kA/1s	set	7				
1A.4	Disconnector switch without E/S, 4000A, 63kA/1s	set	26				
1A.5	Busbar grounding Switch	set	2				
1A.6	Single phase current transformer, multi core, 4000/1, 63kA/1s	nos.	78				
1A.7	Single phase capacitive voltage transformer, multi-core	nos.	27				
1A.8	Single phase surge arrester, 390kV rated, 10kA	nos.	27				
1A.9	Wave Trap, single phase, 420kV, 4000A, 63kA/1s	nos.	4				
1A.10	Post type support insulators for 400kV busbar and switchgear	lot	1				
1A.11	Rigid tubular bus and required conductors, insulators, fittings including all necessary clamps and connectors for busbar compositions						
i)	Rigid Tubular Bus	lot	1				
ii)	Flexible Conductor for jumper, equipment connections	lot	1				
iii)	Insulator	lot	1				
iv)	Fittings	lot	1				
1A.12	Steel Structures for gantry and equipment supports						
a)	Gantry Column including nut & bolts	lot	1				
b)	Gantry beam at Main Bus & Jack-Bus height including nut & bolts	lot	1				
c)	Equipment support structures including nut & bolts						
i)	Circuit Breaker	set	13				
ii)	Disconnector with Earth Switch	set	7				
iii)	Disconnector without Earth Switch	set	26				
iv)	Bus Earth Switch	set	2				
v)	Current Transformer	nos.	78				
vi)	Capacitive Voltage Transformer	nos.	27				
vii)	Surge Arrester	nos.	4				
viii)	Wave Trap	nos.	4				
ix)	Post type support insulators for 400kV busbar and switchgear	lot	1				
x)	Cable tray including fitting, fixing accessories	lot	1				
1B	245 kV Air Insulated Switchgear						
1B.1	SF6 Circuit breaker, 2000A, 50kA/1s, live tank, gang operating for Transformer Bay	set	5				
1B.2	SF6 Circuit breaker, 2000A, 50kA/1s, live tank, single pole operating for Line Bay	set	2				
1B.3	SF6 Circuit breaker, 3150A, 50kA/1s, live tank, gang operating for Bus Coupler Bay	set	1				
1B.4	Disconnector switch without E/S, 2000A, 50kA/1s for Transformer Bay	set	10				
1B.5	Disconnector switch without E/S, 2000A, 50kA/1s for Line Bay	set	4				
1B.6	Disconnector switch without E/S, 3150A, 50kA/1s for bus coupler bay	set	2				
1B.7	Disconnector switch with E/S, 2000A, 50kA/1s for Line & Transformer Bay	set	7				
1B.8	Single phase current transformer, 50kA/1s multicore for Transformer Bay	nos.	15				
1B.9	Single phase current transformer, 50kA/1s multicore for line bay	nos.	6				
1B.10	Single phase current transformer, 50kA/1s multicore for bus coupler bay	nos.	3				
1B.11	Single phase capacitive voltage transformer (CVT), multi core	nos.	27				
1B.12	Single phase surge arrester, 198kV rated, 10kA	nos.	21				
1B.13	Flexible conductor for bus and jumper, insulators, fittings including all necessary clamps and connectors for busbar compositions						
i)	Flexible Conductor for Bus, jumper, equipment connections	lot	1				
ii)	Insulator	lot	1				
iii)	Fittings	lot	1				
Sub-Total Price carried forward							
Sub-Total Price in words.....							

Ashim *Amr* *Sh*

Design, Supply, Installation, Testing & Commissioning of 400/230/132 kV AIS Substation at Pekua and associated single /double circuit 400kV/230kV/132kV LILO Lines on turnkey basis (Package-1)
[Contract No.: POWERGRID/ADB/400kV/PEKUA/PTSIREP/PACKAGE-1/Re-Tender]

Schedule 4D: Installation and Other Services

Item	Description (For detailed description, please refer to specification and Schedule A)	Unit	Quantity	Unit Price ¹		Total Price ¹	
				Local Currency [In BDT]	Foreign Currency [In]	Local Currency [In BDT]	Foreign Currency [In]
1	2	3	4	5	6	7 = 4x5	8 = 4x6
Sub-Total brought forward							
1B.14 Steel Structures for gantry and equipment supports							
a)	Gantry Column including nut & bolts	lot	1				
b)	Gantry beam at Main Bus & Jack-Bus height including nut & bolts	lot	1				
c)	Equipment support structures including nut & bolts						
d)	Circuit Breaker	set	8				
ii)	Disconnector without Earth Switch	set	16				
iii)	Disconnector with Earth Switch	set	7				
iv)	Bus Earth Switch	set	0				
v)	Current Transformer	nos.	24				
vi)	Capacitive Voltage Transformer	nos.	27				
vii)	Surge Arrester	nos.	21				
viii)	Wave Trap	set	0				
ix)	Post type support insulators	lot	1				
d)	Cable tray including fitting, fixing accessories	lot	1				
1C							
1C.1	145 KV Air Insulated Switchgear	set	2				
1C.2	SF6 Circuit breaker, 1600A, 40kV/1s, five tank, gang operating for Transformer Bay	set	6				
1C.3	SF6 Circuit breaker, 3150A, 40kV/1s, five tank, gang operating for Bus Coupler Bay	set	1				
1C.4	Disconnector switch without E/S, 1600A, 40kV/1s for Transformer Bay	set	4				
1C.5	Disconnector switch without E/S, 1600A, 40kV/1s for Line bay	set	12				
1C.6	Disconnector switch without E/S, 3150A, 40kV/1s for bus coupler bay	set	2				
1C.7	Disconnector switch with E/S, 1600A, 40kV/1s for line & Transformer Bay	set	8				
1C.8	Single phase current transformer, 40kV/1s, multi core for Transformer Bay	nos.	6				
1C.9	Single phase current transformer, 40kV/1s for line bay	nos.	18				
1C.10	Single phase current transformer, 40kV/1s for bus coupler bay	nos.	3				
1C.11	Single phase voltage transformer (VVT), multi-core	nos.	30				
1C.12	Single phase surge arrester, 120kV rated 10kA	nos.	24				
1C.13 Flexible conductor for bus and jumper, insulators, fittings including all necessary clamps and connectors for busbar compositions							
i)	Flexible Conductor for Bus, jumper, equipment connections	lot	1				
ii)	Insulator	lot	1				
iii)	Fittings	lot	1				
Sub-Total Price carried forward							
Sub Total Price in words.....							

Asim *Q. M. M. M.* *Sul*

Design, Supply, Installation, Testing & Commissioning of 400/230/132 kV AIS Substation at Pekua and associated single /double circuit 400kV/230kV/132kV LILO Lines on turnkey basis (Package-1)
[Contract No.: POWERGRID/ADB/400kV/PEKUA/PTSIREP/PACKAGE-1/Re-Tender]

Schedule 4D: Installation and Other Services

Item	Description (For detailed description, please refer to specification and Schedule A)	Unit	Quantity	Unit Price ¹		Total Price ¹	
				Local Currency [in BDT]	Foreign Currency [in]	Local Currency [in BDT]	Foreign Currency [in]
1	2	3	4	5	6	7 = 4x5	8 = 4x6
Sub-Total brought forward							
1C.14	Steel Structures for gantry and equipment supports						
a)	Gantry Column including nut & bolts	lot	1				
i)	For Main Bus	lot	1				
ii)	For Jack-Bus	lot	1				
b)	Gantry beam at Main Bus & Jack-Bus height including nut & bolts	lot	1				
c)	Equipment support structures including nut & bolts	set	9				
i)	Circuit Breaker	set	13				
ii)	Disconnector without Earth Switch	set	8				
iii)	Disconnector with Earth Switch	set	0				
iv)	Bus Earth Switch	nos.	27				
v)	Current Transformer	nos.	30				
vi)	Voltage Transformer	nos.	24				
vii)	Surge Arrester	set	0				
viii)	Wave Trap	lot	1				
ix)	Post type support insulators	lot	1				
x)	Cable tray including fitting, fixing accessories						
1D	33kV Switches & connection	set	2				
1D.1	33kV Vacuum Circuit breaker	set	4				
1D.2	33kV Disconnector switch	nos.	15				
1D.3	33kV Inductive voltage transformer (IVT), 2 core	nos.	15				
1D.4	Single phase surge arrester, 30kV rated, 10kA	nos.	1				
1D.5	Tertiary side connection including necessary fittings, structures, 33kV XLPE cable and conductors	lot	6				
1D.6	33kV Current transformer	nos.	3				
1E	Power Transformer & Earthing/Auxiliary Transformer	set	2				
1E.1	400/230/33 kV, 400/500MVA (QIANHONG), three phase Power Transformer	set	2				
1E.2	230/132/33 kV, 225/300MVA (QIANHONG), three phase Power Transformer	set	2				
1E.3	33/0.4 kV, 500kVA Earthing auxiliary Transformer	set	2				
1E.4	Complete water spray fire fighting system for all 400/230/33 kV three phase outdoor type power transformer	lot	1				
1E.5	Complete water spray fire fighting system for all 230/132/33 kV three phase outdoor type power transformer	lot	1				
1E.6	On-line Dissolved Gas & moisture monitoring system for 400/230/33kV auto transformers bank	set	3				
1F	Control, Protection, SAS and Metering	lot	1				
1F.1	Complete Station SAS Panels	set	4				
420kV Circuits		set	3				
1F.2	Complete Control, Protection, monitoring & SAS Panel for overhead line circuits	set	2				
1F.3	Complete Control, Protection, monitoring & SAS Panel for Auto transformer circuits	set	1				
1F.4	Complete Busbar Protection Panel	set	1				
1F.5	Complete Digital Fault Disturbance Recorder (DFDR) panel	set	1				
1F.6	Complete Tariff metering panel	lot	1				
230kV Circuits		set	2				
1F.7	Complete Control, Protection, monitoring & SAS Panel for overhead line circuits	set	5				
1F.8	Complete Control, Protection, monitoring & SAS Panel for Auto transformer circuits	set	1				
1F.9	Complete Control, Protection, monitoring & SAS Panel for Bus Coupler circuits	set	2				
1F.10	Complete Busbar Protection Panel	set	1				
1F.11	Complete Digital Fault Disturbance Recorder (DFDR) panel	lot	1				
1F.12	Complete Tariff metering panel	set	6				
145kV Circuits		set	2				
1F.13	Complete Control, Protection, monitoring & SAS Panel for overhead line circuits	set	1				
1F.14	Complete Control, Protection, monitoring & SAS Panel for Auto transformer circuits	set	1				
1F.15	Complete Control, Protection, monitoring & SAS Panel for Bus Coupler circuits	set	1				
1F.16	Complete Busbar Protection Panel	set	1				
1F.17	Complete Digital Fault Disturbance Recorder (DFDR) panel	set	1				
1F.18	Complete Tariff metering panel	lot	1				
33kV Circuit		lot	1				
1F.19	Control, Monitoring, Protection & SAS for 33kV station power system	lot	1				
1F.20	Tariff metering						
1G	Multicore Cables						
1G.1	Multicore Cables for control, protection, metering & power circuits	lot	1				
i)	LV Control Cable	lot	1				
ii)	LV Power Cable						
Sub-Total Price carried forward							
Sub Total Price in words.....							

Asim *1.1* *mm* *24*

Design, Supply, Installation, Testing & Commissioning of 400/230/132 kV AIS Substation at Pekua and associated single /double circuit 400kV/230kV/132kV LILO Lines on turnkey basis (Package-1)

[Contract No.: POWERGRID/ADB/400kV/PEKUA/PTSIREP/PACKAGE-1/Re-Tender]

Schedule 4D: Installation and Other Services

Item	Description (For detailed description, please refer to specification and Schedule A)	Unit	Quantity	Unit Price ¹		Total Price ¹	
				Local Currency [In BDT]	Foreign Currency [In]	Local Currency [In BDT]	Foreign Currency [In]
1	2	3	4	5	6	7 = 4x5	8 = 4x6
Sub-Total brought forward							
1H	Earthing and Lightning Protection						
1H.1	Earthing system for complete substation	lot	1				
1H.2	Lighting Protection System for complete substation	lot	1				
1I	Batteries, chargers & DC distribution						
1I.1	110V Ni-cad Batteries with chargers & distribution board & others						
a)	for 400kV System						
i)	110V Battery Banks, Ah	set	2				
ii)	Charger, A	set	2				
iii)	110V DC Distribution panel, MCC type	lot	1				
c)	for 230kV System						
i)	110V Battery Banks, Ah	set	2				
ii)	Charger, A	set	2				
iii)	110V DC Distribution panel, MCC type	lot	1				
iv)	Inverter for SAS	set	2				
b)	for 132kV System						
i)	110V Battery Banks, Ah	set	2				
ii)	Charger, A	set	2				
iii)	110V DC Distribution panel, MCC type	lot	1				
1I.2	48V Ni-cad Batteries with chargers & distribution board						
i)	48V battery Banks, Ah	set	2				
ii)	Charger, A	set	2				
iii)	48V DC Distribution Panel	lot	1				
1J	LVAC Distribution						
1J.1	AC 415V or 240V distribution panels (MCC type)	lot	1				
1J.2	Tariff metering at LV side (Main & Check)	lot	1				
1K	Civil Works, Building and Foundation						
1K.1	Complete land development and slope protection						
i)*	Complete land development with carried/dredged earth filling including approach road	cum	647520				
ii)	Geosynthetic Reinforced Soil						
a)	GPS wall with articulated concrete facing	lot	1				
1K.2	Complete civil items required for outdoor works						
i)	Outdoor gantry foundation in 400kV switchyard	lot	1				
a)	Gantry column						
ii)	Outdoor equipment foundation in 400kV switchyard						
a.*	CB	set**	13				
b.*	DS without ES	set**	26				
c.*	DS with ES	set**	7				
d.*	Bus ES	set**	2				
e.*	CT	nos	78				
f.*	CVT	nos	27				
g.*	LA	nos	27				
h.*	Wave Trap	set**	4				
i)	PI	lot	1				
ii)	Outdoor gantry foundation including tower foundation in 230kV switchyard						
a)	Gantry column	lot	1				
b)	Tower	lot	1				
iii)	Outdoor equipment foundation in 230kV switchyard						
a.*	CB	set**	8				
b.*	DS without ES	set**	16				
c.*	DS with ES	set**	7				
d.*	CT	nos	24				
e.*	CVT	nos	27				
f.*	LA	nos	21				
g)	PI	lot	1				
iv)	Outdoor gantry foundation including tower foundation in 132kV switchyard						
a)	Gantry column	lot	1				
b)	Tower	lot	1				
v)	Outdoor equipment foundation in 132kV switchyard						
a.*	CB	set**	9				
b.*	DS without ES	set**	18				
c.*	DS with ES	set**	8				
d.*	CT	nos	27				
e.*	CVT	nos	30				
f.*	LA	nos	24				
g)	PI	lot	1				
vii)*	Outdoor equipment foundation in 33kV switchyard						
a)	CB	set**	2				
b)	DS	set**	4				
c)	CVT	nos	15				
d)	LA/SA	nos	15				
e)	CT	nos	6				
vi)	Outdoor gantry foundation including tower foundation in 33kV switchyard						
ix)*	Transformer pad with foundation including oil pit						
a)	50MVA transformer	nos	3				
b)	300MVA transformer	nos	2				
c)	Auxiliary Transformer	nos	2				
x)*	Blast wall with foundation	nos	5				
xi)*	Boundary wall for overall plan						
a)	Boundary wall with RCC retaining wall	m	60				
b)	Boundary wall without retaining wall	m	1375				
xii)*	Substation main gate	nos	1				
xiii)*	Chain link fencing	m	500				
xiv)*	Approach road (pavement width 8m)	m	20				
xv)*	Internal road						
a)	8m wide road	m	800				
b)	4.5m wide road	m	500				
c)	3m wide road	m	300				
d)	1.5m wide way	m	10				
Sub-Total Price carried forward							
Sub Total Price in words.....							

Ashim

Anwar

Jahid

M. M. M.

Sol